

- 5 11. A process for producing an IGS3 polypeptide comprising culturing a host of claim 7 under conditions sufficient for the production of said polypeptide and recovering the polypeptide from the culture.
- 10 12. A process for producing a cell which produces an IGS3 polypeptide thereof comprising transforming or transfecting a cell with the expression vector of claim 6 such that the cell, under appropriate culture conditions, is capable of producing an IGS3 polypeptide.
13. An IGS3 polypeptide comprising an amino acid sequence which is at least 80% identical to the amino acid sequence of SEQ ID NO:2 over its entire length.
- 15 14. The polypeptide of claim 13 which comprises the amino acid sequence of SEQ ID NO:2.
16. An antibody immunospecific for the IGS3 polypeptide of SEQ ID NO:2 or a Variant thereof.
- 20 16. A method for the treatment of a subject suffering from a disease related to expression or activity of the IGS3 polypeptide receptor of claim 13, in need of enhanced activity or expression of the IGS3 polypeptide receptor of claim 13, comprising:
- 25 (a) administering to the subject a therapeutically effective amount of an agonist to said receptor; and/or
- (b) providing to the subject an isolated polynucleotide comprising a nucleotide sequence that has at least 80% identity to a nucleotide sequence encoding the IGS3 polypeptide of SEQ ID NO:2 over its entire length; or a nucleotide sequence complementary to said nucleotide sequence in a form so as to effect production of said receptor activity in vivo.
- 30 17. A method for the treatment of a subject suffering from a disease related to expression or activity of the IGS3 polypeptide receptor of claim 13, having need to inhibit activity or expression of the IGS3 polypeptide receptor of claim 13, comprising:
- 35 (a) administering to the subject a therapeutically effective amount of an antagonist to said receptor; and/or
- (b) administering to the subject a polynucleotide that inhibits the expression of the nucleotide sequence encoding said receptor; and/or

- (c) administering to the subject a therapeutically effective amount of a polypeptide that competes with said receptor for its ligand.

18. A process for diagnosing a disease or a susceptibility to a disease in a subject related to expression or activity of the IGS3 polypeptide of claim 13 in a subject comprising:

- (a) determining the presence or absence of a mutation in the nucleotide sequence encoding said IGS3 polypeptide in the genome of said subject; and/or
(b) analyzing for the presence or amount of the IGS3 polypeptide expression in a sample derived from said subject.

19. A method for identifying agonists to the IGS3 polypeptide of claim 13 comprising:

- (a) contacting a cell which produces a IGS3 polypeptide with a test compound; and
(b) determining whether the test compound effects a signal generated by activation of the IGS3 polypeptide.

20. An agonist identified by the method of claim 19.

21. A method for identifying antagonists to the IGS3 polypeptide of claim 13 comprising:

- (a) contacting a cell which produces a IGS3 polypeptide with an agonist; and
(b) determining whether the signal generated by said agonist is diminished in the presence of a candidate compound.

22. An antagonist identified by the method of claim 21.

23. A recombinant host cell produced by a method of claim 12 or a membrane thereof expressing an IGS3 polypeptide.

24. A method of creating a genetically modified non-human animal comprising the steps of:

- a) ligating the coding portion of a polynucleotide consisting essentially of a nucleic acid sequence encoding a protein having the amino acid sequence SEQ ID NO: 2 to a regulatory sequence which is capable of driving high level gene expression or expression in a cell type in which the gene is not normally expressed in said animal; or
b) engineering the coding portion of a polynucleotide consisting essentially of a nucleic acid sequence encoding a protein having the amino acid sequence SEQ ID NO: 2 and reintroducing said sequence in the genome of said animal in such

a way that the endogenous gene alleles encoding a protein having the amino acid sequence SEQ ID NO: 2 are fully or partially inactivated.